

GLAUCOMA

Chairperson: S Johnston

Prevalence of Normal Tension Glaucoma in the Caribbean: Summary of the St Lucia and Barbados Eye Studies

A Realini

West Virginia University Eye Institute

Objective: To describe the distribution of untreated intraocular pressure among patients with open-angle glaucoma in the Caribbean.

Method: Review of landmark epidemiological studies conducted in the Caribbean region, including the St Lucia and the Barbados Eye Studies.

Results: In both the St Lucia and Barbados studies, mean untreated intraocular pressure (IOP) was 20–21, suggesting around half of patients had IOP below 22 mmHg. This is consistent with other studies of glaucoma in people of African descent, such as the Baltimore Eye Survey.

Conclusion: Normal tension glaucoma may represent approximately half of all open-angle glaucoma in the Caribbean.

Case presentation: Twenty-four-hour Blood Pressure Monitoring in a Patient with Glaucoma: The Big Dipper

D Murray

The University of the West Indies, St Augustine campus

Objective: Progressive visual field loss in patients with normal tension glaucoma is associated with large decreases in nocturnal arterial blood pressure (BP). Patients seem particularly susceptible to this “dip” during sleep. This case reports the BP over a 24-hour period, in a 90-year old patient receiving treatment for systemic hypertension. He exhibited progressive visual field loss despite intraocular pressure (IOP) measurements within the statistically normal range.

Method: Systemic blood pressure (SBP) was recorded continuously over a 24-hour period in a patient with glaucoma. Intraocular pressures at diagnoses were: right 26 mmHg; left 24 mmHg. When phased between 8:00 am and

4:00 pm, IOPs varied from 8–17 mmHg right-eye and 9–16 mmHg left-eye, on treatment. Blood pressure was automatically measured every 15 minutes during the day (8:00 am to 10:00 pm) and every 30 minutes at night (10:00 pm – 8:00 am).

Results: There was a significant drop in BP at night. Highest day-time BP was 140/93 mmHg at 12:00 noon and lowest night-time BP was 77/48 mmHg at 2:33 am.

Conclusion: The “dip” in BP at night, especially while asleep, may be associated with poor optic nerve head perfusion resulting in ischaemic episodes at the optic nerve head. This nocturnal hypotension may be an important factor in the pathogenesis and progression of glaucoma despite apparent IOP control. These patients should be considered for 24-hour ambulatory blood pressure monitoring especially if the patient is being treated for systemic hypertension.

The author has not previously published these data and has not previously presented them at a large national annual scientific meeting.

Association between Nocturnal Hypotension and Optic Disc Haemorrhage in Glaucomatous Eyes

A Maharaj

Pituitary Macroadenomas Masquerading as Normal Tension Glaucoma

J Smith

Summary of the Collaborative Normal Tension Glaucoma Study

S Sugrim

Indications for surgical intervention in patients with normal tension glaucoma Questions and answers/panel discussion

An Audit of the State of Glaucoma Service at the Port-of-Spain General Hospital

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Port-of-Spain General Hospital*

Objective: To analyse the structure, function and efficacy of the glaucoma service at the Port-of-Spain General Hospital (POSGH) with the aim of bringing the service-up to internationally acceptable standards.

Method: Data were retrospectively collected from the clinic notes of five hundred patients. Using the National Institute of Health and Care Excellence (NICE), Glaucoma: diagnosis and management April 2009 guidelines as the gold standard, the data were analysed to determine whether diagnostic, monitoring and management criteria were adequately met.

Conclusions: Analysis of the collected data conclusively demonstrated that only in a few very cases have these criteria been met in a consistent manner. Late diagnosis, misdiagnosis and poorly informed treatment decisions are some of the key factors that have been identified. Guidelines have been instituted as per the NICE recommendations. Efforts are being made to rigidly adhere to these protocols.

Corneal Oedema Secondary to Anterior Chamber Migration of Ozurdex Implant

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Introduction: Intravitreal implantation of Ozurdex® (Allergan Inc, Irvine, CA, USA) is registered for the treatment of macular oedema secondary to retinal vein occlusion and in cases of non-infectious posterior uveitis. This case describes a patient with an only eye who was treated with ozurdex and developed corneal oedema.

Patient and Method: This is a case of a 65-year old lady who had multiple retinal detachment repairs in both eyes. In addition, due to clouding of the left intra-ocular lens, subluxation of the right lens and bilateral corneal oedema, bilateral intra-ocular lens exchanges were done. Multiple intravitreal injections were done due to macula oedema. This remained unresponsive to intra-vitreous avastin and kenalog injections. Ozurdex was injected due to deteriorating vision in February with resolution of the macula oedema. This was repeated three months later. The implant was noted in the anterior chamber 20 days later.

Discussion: Anterior chamber migration of the ozurdex implant is a major risk with zonular or posterior capsular breach. The implant must be repositioned promptly into the vitreous cavity or removed, due to the risk of corneal oedema which seems to be refractory when present even if the implant is subsequently removed.

Conclusion: Absence of a posterior capsule or zonular weakness present a high-risk for ozurdex migration into the anterior chamber with subsequent corneal oedema. In such cases where macula oedema is treated with anti-VEGF therapy, alternative treatments need to be considered carefully and discussed with the patient.